# VEHICLE TECHNOLOGIES PROGRAM

# **USPS eLLV Conversion Fleet**

Washington D.C Metro Area Fleet Location:

Number of vehicle days driven: 50 Reporting period: May 2011

#### **All Trips Combined**

Overall DC electrical energy consumption (DC Wh/mi)			
Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup>	719		
Average operating electricity cost (cents per mile) <sup>2</sup>	8.1		
Total number of trips	1,401		
Total distance traveled (mi)	719		
Average Trip Distance (mi)	0.5		

#### Stop & Go Trips (>5 stops/mile)

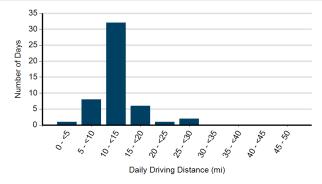
DC electrical energy consumption (DC Wh/mi)	530
Number of trips	1,308
Distance traveled (mi)	495
Percent of total distance traveled (%)	69%
Average Trip Distance (mi)	0.4
Average Driving Speed (mph)	5.6
Average Stops per mile	31.4
Percent of Regen Braking Energy Recovery (%)	15%

# City Trips ( ≤ 5 stops/mile & <37 mph avg)

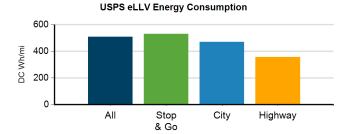
DC electrical energy consumption (DC Wh/mi)	471
Number of trips	91
Distance traveled (mi)	175
Percent of total distance traveled (%)	24%
Average Trip Distance (mi)	1.9
Average Driving Speed (mph)	16.6
Average Stops per mile	3.8
Percent of Regen Braking Energy Recovery (%)	13%

# Highway Trips ( $\leq 5$ stops/mile & $\geq 37$ mph avg)

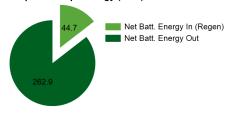
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DC electrical en	ergy consur	nption (DC	C Wh/mi)		357
Number of trips					2
Distance travele	ed (mi)				49
Percent of total	distance tra	veled (%)			7%
Average Trip Di	stance (mi)				24.7
Average Driving	Speed (mp	h)			41.3
Average Stops	per mile				1.2
Percent of Rege	en Braking E	nergy Red	covery (%)		8%



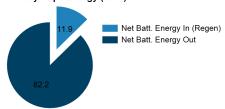
Number of Vehicles: 5



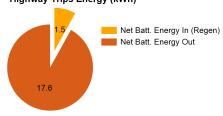
#### Stop & Go Trips Energy (kWh)

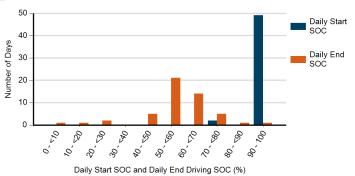


#### City Trips Energy (kWh)



### Highway Trips Energy (kWh)





- 1. Calculation based upon average of the vehicles' roundtrip charging efficiency (70%)
- 2. From www.eia.gov, the national average cost of electricity is \$ 0.112 per AC kWhr. The gasoline powered LLV fleet averages 10 mpg. NOTE: A trip is defined as all vehicle operation between key on and key off



